Effectiveness of Laughter Therapy on Stress among the Married Female Staff Nurses at Selected Hospitals

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Abstract: _Aim of the study: The study aim to find the effectiveness of laughter therapy on stress among the married female staff nurses at selected hospitals .Objective of study: 1.To assess the level of stress among married female staff nurses at selected hospitals.2. To determine the effectiveness of laughter therapy by comparing pre-test and post-test level of stress among experimental group.3. To determine the effectiveness of laughter therapy by comparing the post-test level of stress among experimental and control group. 4. To find out the association between pre-test level of stress and selected demographic variables. Methods: True experimental Pre- test -Post-test control group research design to accomplish the objective to determining the effectiveness of Laughter Therapy in reducing stress among the married female staff nurses in selected hospitals. The sample comprises 60 married female staff nurses in selected hospitals. Formal written permission from hospitals was obtained prior to data Collection process. Data was collected using Structured Expanded Nursing stress scale (ENSS). Data was analyzed using descriptive and inferential statistics. Result: The presents study evaluates and found that demographic variables, 14 (46.67%)Married female staff nurses were in age group 26-30 years, 17 (56.67%)Married female staff nurses were Hindus, 13 (43.33%) were BSc/ PBBSc graduates, 10 (33.33%) nursing staff working in general ward , 16 (53.33%) were Staff Nurse/ Nurse Assistant, 12 (40%) were belong to 10000 Rs-15000Rs, 17(56.67%) staff nurses were form nuclear family, 16 (53.33%) were not have any information regarding laughter therapy. Interpretation and conclusion: The Laughter Therapy is a simple non Pharmacological intervention which should be carried out independently in the field of nursing. The overall experience of conducting this study was enriching hence it gives an opportunity to the investigator to acquire new information as well as learning experience. The experience of the investigator during the study and the findings helped the investigator to give suggestions and the recommendations for further studies._

Keywords: Married female Staff Nurses, Stress & Laughter Therapy

1. Introduction

"The human race has one really effective Weapon and that is Laughter"

The term "stress", was coined by Hans Selye in 1936, who defined it as "the non-specific response of the body to any demand for change". In other words, stress is the nonspecific response of the body to any demand, whether it's caused by or results in, pleasant or unpleasant conditions.[1] Life is stressful and represents a contrast, dynamic exchange of energy between people and their environment. The human organism uses innate processes to maintain and restore homeostasis under stressful conditions. The nature of stress is determined by one's resources and coping mechanisms and response to internal and external demands. Overall, stress is an internal part of everyday living and is encountered throughout the life span.[2]Job stress is a chronic disease caused by conditions in the workplace that negatively affect an individual`s performance and or overall well-being of his body and mind. One or more of a host of physical and mental illnesses manifests job stress. In some cases, job stress can be disabling. In chronic cases a psychiatric consultation is usually required to validate the reason and degree of work related stress.[3] Research on 'stress experienced by staff in critical care units' has predominantly focused on the nurses; however, a small number of investigations have centered on intensity vist neonatologists and pediatricians'. Australian studies have highlighted that the major stressors encountered by critical care staff. Research report suggested that job satisfaction is diminished for staff working within highly stressful critical care units. Study also discussed the implications in order to focus attention upon the effects of high dependency stressful work environments.[4]

2. Need for the Study

According to **World health organization, (2009)** Laughter Therapy is especially beneficial for married female staff nurses. Seniors nurses are always in need of human contact in patients. While most of them are surrounded by like minded peers, they still miss the bonding of a family. They need someone close with whom they can share their emotions. Laughter Therapy sessions have the power to reach beyond the healing of laughter. The effective network of key to a happy and healthy life. Relationships with people become very strong and the feeling of loneliness dissipates. Seniors enjoy the daily meetings as it generates a sense of belonging. Therefore the incidence rate gives us a clear picture about the problems of senior citizen. The investigator has personally witnessed the senior citizen suffering from various psychological disturbances. Hence the investigator was interested in administering laughter therapy and to find out the effectiveness to reduce stress among senior citizen and to promote the health status of senior citizens.[5]A conducted descriptive study to assess the psychological stress of married female staff nurses in a rural Hospital. The

results showed that economic dependence, sad attitude towards life, loneliness and lack of awareness of the services were some of the needs of nurses and have to strengthen them.[6]

3. Review of Literature

Le Gall J R, et.al (2011) studied "Burn out syndrome among critical care workers", It highlighted that 'Burnout syndrome' (BOS) is a psychological state resulting from prolonged exposure to job stressors. Because intensive care units (ICUs) are characterized by a high level of work-related stress, the researchers reviewed the available literature on BOS among ICU-healthcare workers. Recent studies suggest that severe BOS (measured with the Maslach Burnout Inventory) was present in about half of all critical care physicians and one-third of critical care nurses. Interestingly, the determinants of BOS differ between the two groups of caregivers. Intensivists with severe BOS tended to be those with a large number of working hours (number of night shifts, and time since last vacation), whereas severe BOS among ICU nurses was mainly related to ICU organization and end-of-life care policy. ICU conflicts were independent predictors of severe BOS in both groups. Recent studies also identify potential preventive measures, such as ICU working groups, better communication during end-of-life care, and prevention and management of ICU conflicts.[7]**Pawar (2014)** examined the level of stress among nurses working in intensive care units of the hospitals in Navi-Mumbai, Maharashtra, India. The descriptive survey design was adopted for the study in order to identify level of stress and its association to selected demographics. The stress level was identified using modified version of Expanded Nursing Stress Scale. The results of the study showed that 42% of nurses were severely stressed, 34% had moderate stress, 14% had mild stress and 10% had very severe stress. The very severe stress level was highest (30%) in the area of patient and families followed by problems related to supervisors (22%). A significant relationship was found between the level of stress and demographic variables such as age, years of experience and educational qualification.[8]

4. Assumption

1) Married female staff nurses working with experience certain level of stress.
2) Laughter therapy has effect on stress among the Married female staff nurses.

5. Limitations

1) The study was confined to a specific geographical area, which imposes limits to any larger generalization.
2) The study sample was comparatively small and restricted.
3) Long term effects of Laughter Therapy were not observed.

6. Hypothesis

H_{01}: There will be significant difference between level of stress before and after administration of laughter therapy in experimental group.
H_{02}: There will be significant difference between the post-test level of stress among married female staff nurses in experimental group and control group.
H_{03}: There will be significant association between Pre-test level of stress with the selected demographic variables.

7. Methodology

Research approach: A Quantitative research with evaluative approach
Research design: True Experimental Pre test – Post test Control Group Research Design.

Variables under study:
(1) Independent Variables: laughter therapy on Stress Reduction.
(2) Dependent Variable: Stress Among married female staff nurses In Selected Hospitals.

Setting: The study was conducted in selected hospital as the setting.

Population: In this study, the population includes Married female staff nurses. **(1)Target population:** consist of Married female staff nurses at in selected Hospitals. **(2)Accessible population:** Married female staff nurses who are present in Ward at the time of data collection at Hospital.

Sample and sampling technique Sample: In the present study sample are at selected hospital.

Sample size: The sample size for the present study is 60 married female staff nurses who fulfill the set inclusion criteria.

Sampling Technique: Simple Random Sampling Technique (lottery Method).

Inclusion Criteria:
- Married female staff nurses in selected Hospitals.
- Married female staff nurses who are present at the time of date collection.

Exclusion criteria
- Married female staff nurses following some other forms of stress management techniques such as relaxation technique and mindfulness meditation technique.
- Those who are not willing to participate in the study.

Tool preparation
Tool used for the research study was Expanded Nursing Stress scale. The tool was prepared after extensive review of literature search, consultation with experts, and based on the past clinical experience of the investigator.

Development of tool:
The research instrument consists of two parts:

Part-I - Demographic data - It consists of demographic data on 09 different variables such as Age in years, Religion, Education status, Area of work in the hospital, Current Designation, Working experience, Monthly income in rupees, Type of family, DO you have any previous exposure of teaching related to sensory stimulation, If yes source of previous information regarding sensory stimulation .

Part-II- Expanded Nursing stress scale (ENSS) -Rating questionnaire consist of 59 items, covering different areas of stress of married female staff nurses. Each married female staff nurses have to rate and give mark in front of statement according to their experience in period of stress.

Validation of the tool: To ensure the content validity the given 11 experts from the field of mental health nursing, and from statistician Department, consultant psychiatrist, clinical psychologist with laughter therapy experts. The experts were requested to give their opinion on the appropriateness and relevance of the items in the tool. As a whole the suggestions and comments of experts included addition and deletion of some of the items. The tool was found to be relevant. The necessary modifications have been done as per the Expert's advice.

Reliability :- In order to establish reliability of the tool,After obtaining formal administrative permission, the tool was administered to six sample selected as per the set criteria .the score were calculated by Guttman's split half method. The reliability coefficient (r) was calculated and the score is equal to (0.89).if score of (r) is grater then (0.96) t

Feasibility of the study: The investigator conducted a Pilot study.

Pilot study: The pilot study was conducted from 02nd to 11th of November 2018 in selected hospitals .to assess the feasibility of the study and to decide the plan for analysis.

Data collection procedure: Prior permission will be taken from the selected hospital.Informed consent will be taken from study participants and data will be kept Confidential. The period of data collection was from 8th December 2018 to 9th January 2019. The data was collected by the investigator. The laughter therapy will be provided to the experiment group for a time period of 15 days where as the control group will not receive any intervention. Post test will be assessed after 15 days of pre test for both the groups.

Plan for data analysis: - (1) Description of demographic characteristics of married female staff nurses was computed by using frequency and percentage. (2) Mean, Standard deviation of pre and post- test knowledge scores was computed. (3) "t" test was applied to determine the significance of mean difference between mean pre-test and post- test knowledge scores. (4) Chi- square test was used to find the association of knowledge score with demographic variables and the findings were documented in tables, graphs and diagram.

Scoring mode: The Expanded Nursing Stress Scale (ENSS) incorporate 59 item with nine sub- scales. Each item required respondents to rate on a five-point likert-type ranging from "I never stressful' 'to "4 extremely stressful'' and "0 Does not apply''. The higher the score, the more the respondent agrees that the situation was stressful. Total and sub-scale score can be derived from this instrument.

Scoring Pattern Expanded Nursing Stress Scale

Response	Scoring
1. Does not apply -	0
2. Never Stressful -	01
3. Occasionally stressful	- 02
4. Frequently stressful -	03
5. Extremely Stressful -	04

8. Results

Organization of the data: The data was organized, analyzed and presented under the following section.

Section –I: Description of frequency and percentage distribution of married female staff nurses according to the selected demographic variables

Section – II: Frequency and percentage distribution of pretest and post test scores in control and experimental group.

Section – III: Comparison of mean scores between pretest and posttest among experimental and control group.

Section – IV: Association between pretest score with demographic graphic variables among experimental and control.

Section I: Description of married female staff nurses with regards to demographic Variables

Table 1: Frequency and percentage distribution of demographic variables.

Sr.No	Variable	Group	Experimental		Control	
			Frequency	Percentage	Frequency	Percentage
1.	Age	Up to 25 year	8	26.67	6	20.67
		26-30 year	11	36.67	14	46.67
		31-35 year	7	23.33	8	26.67
		36 and above	4	13.33	2	6.67
2.	Religion	Hindu	16	53.33	17	56.67
		Muslim	5	16.67	3	10
		Christian	4	13.33	3	10
		Others	5	16.67	7	23.33
3.	Educational Status	ANM	6	20	4	13.33
		GNM	8	26.67	7	23.33
		BSC/PBBC	13	43.33	17	56.67
		MSC	3	10	2	6.67

4.	Area Of Work In The Hospital	General ward	10	33.33	9	30
		OPD and Causality	6	20	8	26.67
		ICU	9	30	8	26.67
		OT	5	16.67	5	16.67
5.	Current Designation	Staff Nurse/ Nurse Assistant	16	53.33	18	60
		Nurse/Ward In charge	5	16.67	3	10
		Nurse Educator	4	16.33	3	10
		Others	5	16.67	6	20
6.	Working Experience	0-5 years	9	30	8	26.67
		6-10 years	11	36.67	12	40
		11-15 years	5	16.67	4	13.33
		16 years and above	5	16.67	6	20
7.	Monthly Income	5000 Rs -10000 Rs	8	26.67	7	23.33
		10000 Rs-15000Rs	13	43.33	13	43.33
		15000 Rs-20000 Rs	7	23.33	7	23.33
		More than 20000 Rs	3	10	3	10
8.	Type Of Family	Nuclear	13	43.33	11	36.67
		Joint	17	56.67	19	63.33
9.	Previous information regarding laughter therapy	No information	16	53.33	17	56.67
		Seminar /workshop	4	13.33	3	10
		Friends/ Collogue	3	10	4	13.33
		Mass Media	2	6.67	1	3.33
		Other	5	16.67	5	16.67

Section II: Frequency and percentage distribution of pretest and post test scores in control and experimental group.

Table 2: Pre Test Stress Score

Sr .No	Category	Pre test	
		Frequency	Percentage
1	Mild	8	26.67
2	Moderate	16	53.33
3	Severe	6	20

Table 3: Post Test Stress Score

Sr. No	Category	Post test	
		Frequency	Percentage
1	Mild	21	70
2	Moderate	6	20
3	Severe	3	10

Section III

Table III: Frequency and Percentage distribution of subjects with regards to level of stress among experimental and control groups

S. no	Category	Pre Test				Post Test			
		Experimental group		Control group		Experimental group		Control group	
		n	%	n	%	n	%	n	%
1	Mild								
2	Moderate	8	26.67	10	33.33	21	70	11	36.67
3	Severe	16	53.33	15	50	6	20	15	50
		6	20	5	16.67	3	10	4	13.33

Section IV

Comparison of Stress level between experimental group and control group

Stress level	Mean	Standard Deviation	Mean difference	't' value	'p' value	Significant
Experimental group	75.37	39.87	28.70	6.75	0.000	Significant
Control group	104.07	43				

Section V

Table 1: Association between Pre Test stress level score with selected demographic variables (Experimental group & Control Group)

Sr .no	Demographic variable	Chi square	Degree of freedom	P value	Inference
1	Age in years	9.932	6	0.128	NS
2	Religion	14.330	6	0.026	Significant Association
3	Educational status	20.453	6	0.002	Significant Association
4	Area of work in the hospital	2.275	6	0.893	NS
5	Current designation	3.639	6	0.723	NS
6	Working experience	9.962	6	0.126	NS
7	Monthly income	10.88	6	0.092	NS
8	Type of family	6.162	2	0.049	Significant Association
9	Previous information regarding laughter therapy	29.284	8	0.0002	Significant Association

H1: There is significant difference between the level of stress before and after administration of laughter therapy in experimental group. As the result shows there is significant decrease in post-test level of stress among married female staff nurses in experimental group after the intervention of laughter therapy, **hence H1 is accepted.**

H2: There is significant difference between post-test level of stress among experimental group and control group**.** As the result shows there is significant difference in post-test level of stress of experimental and control group among married female staff nurses after the laughter therapy **hence H2 is accepted.**

H3: There is significant association between pretest level of stress with the selected demographic variables.

The study show that there is significant association between the selected socio-demographic variables like **religion, educational status, type of family and previous information regarding laughter therapy** with pre-test level of stress of married female staff nurses. the study show that there is significant association between the selected socio-demographic variables like **religion, educational status, type of family and previous information regarding laughter therapy** with pre-test level of stress of married female staff nurses. **Hence hypothesis H3 Accepted.**

9. Conclusion

The mean of post test score (10%) was Less than the mean of pre- test score (33.33%) The study findings concluded that there is reduce stress level married female staff nurses. Laughter therapy had great potential for reduction in stress among married female staff nurses at selected hospital.

10. Recommendation

1) To Replication of the same study on large samples may help to draw conclusions that are more definite and generalize to a larger population.
2) A study could be conducted to evaluate the effectiveness of Laughter Therapy with other non- pharmacological measures of stress.
3) A descriptive study could be conducted to assess the knowledge and attitude of nurses towards complementary therapies for stress.

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